

AMENDMENTS TO THE CLAIMS

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1. (Original) A communication system in which a transmitting station and a receiving station are communicably connected through a transmission path, and the receiving station reserves a bandwidth used in data communication for the transmitting station in advance, wherein

said transmitting station transmits a reservation request packet for bandwidth reservation to said receiving station when data to be transmitted is generated,

said receiving station reserves the bandwidth in response to the reservation request packet from said transmitting station, and

transmits a communication reservation packet for informing said transmitting station of the reserved bandwidth,

said transmitting station

creates a data packet according to the generated data, and

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transmits the created data packet through the bandwidth informed by the communication reservation packet from said receiving station, and

said receiving station

stores a valid period of the bandwidth reserved for said transmitting station, and

voluntarily and repeatedly transmits the communication reservation packet to said transmitting station during the stored valid period.

2. (Original) The communication system as claimed in claim 1, wherein an initial value of the valid period stored for said transmitting station is predetermined, and

said receiving station further

shortens the stored valid period with given timing,

lengthens the stored valid period on reception of the data packet from said transmitting station,

deletes the valid period when the valid period is equal to a predetermined reference value, and

voluntarily and repeatedly transmits the communication reservation packet to said transmitting station as long as the valid period is stored.

3. (Original) The communication system as claimed in claim 2, wherein said transmitting station further sets an identifier assigned thereto to the reservation request packet, and said receiving station further

stores the identifier set to the reservation request packet transmitted from said transmitting station together with the initial value of the valid period, and

when deletes the valid period, deletes the stored identifier together therewith.

4. (Original) The communication system as claimed in claim 1, wherein said receiving station further transmits, with given timing, a request inquiry packet for allowing said transmitting station to transmit the reservation request packet, and said transmitting station further transmits the reservation request packet in response to the request inquiry packet transmitted from said receiving station.

5. (Original) The communication system as claimed in claim 4, wherein said receiving station further sets, to the request inquiry packet, a probability that said transmitting station can transmit the reservation request packet, and

said transmitting station further transmits the reservation request packet according to the probability value included in the request inquiry packet transmitted from said receiving station.

6. (Original) The communication system as claimed in claim 5, wherein, when said receiving station detected a communication collision on said transmission path, the probability value set to the request inquiry packet is relatively low.

7. (Original) The communication system as claimed in claim 5, wherein, when said receiving station correctly received the reservation request packet from said transmission path, the probability value set to the request inquiry packet is relatively high.

8. (Original) The communication system as claimed in claim 5, wherein, when no signal arrives the receiving station from said transmission path for a given time period, the probability set to the request inquiry packet is relatively high.

9. (Original) The communication system as claimed in claim 2, wherein said receiving station further changes a time interval between two communication reservation packets according to the valid period.

10. (Original) The communication system as claimed in claim 1, wherein said receiving station further changes a time interval between two communication reservation packets according to a transfer rate required by said transmitting station.

11. (Original) The communication system as claimed in claim 1, wherein, when no signal arrives the receiving station from said transmission path for a given time period, said receiving station further judges that the communication reservation packet can be transmitted.

12. (Original) The communication system as claimed in claim 1, wherein said receiving station further judges that the communication reservation packet can be transmitted on reception of the data packet from said transmission path.

13. (Original) The communication system as claimed in claim 1, wherein said transmitting station further judges that the reservation request packet can be transmitted on reception of the data packet or the communication reservation packet from said transmission path.

14. (Original) The communication system as claimed in claim 1, wherein, when no signal arrives the receiving station from said transmission path for a given time period, said transmitting station further judges that the reservation request packet can be transmitted.

15. (Original) The communication system as claimed in claim 1, wherein said transmitting station further judges that the data packet can be transmitted on reception of another data packet from said transmission path.

16. (Original) The communication system as claimed in claim 1, wherein said transmitting station further measures a lapse of time after transmitted the data packet, and when the lapse of time becomes equal to a reference value relevant to the valid period, judges that the reservation request packet can be transmitted.

17. (New) A receiving station which is communicably connected with a transmitting station through a transmission path, and assigns a bandwidth used in data communication with the transmitting station before data communication, said receiving station comprising:

a bandwidth reserving section for reserving a bandwidth for said transmitting station after a reservation request packet for bandwidth reservation is received from said transmitting station;

a storing section for storing a valid period of the bandwidth reserved by said bandwidth reserving section for said transmitting station; and

a transmitting section for voluntarily and repeatedly transmitting a communication reservation packet for informing said transmitting station of the bandwidth reserved by said bandwidth reserving section.

18. (New) A transmitting station which is communicably connected with a receiving station through a transmission path, and reserves a bandwidth used in data communication with the receiving station before data communication, said transmitting station comprising:

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a first transmitting section for transmitting a reservation request packet for bandwidth reservation to said receiving station when data to be transmitted is generated;

a receiving section for repeatedly receiving a communication reservation packet including the bandwidth reserved in the receiving station; and

a second transmitting section for generating a data packet based on generated data every time said receiving section receives a communication reservation packet, and transmitting the generated data packet using a bandwidth included in the communication reservation packet.
